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#### CENTER FOR GLOBAL HEALTH

# Update on global cancer research for National Cancer Advisory Board

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Center for Global Health
National Cancer Institute, NIH, DHHS
December 2015

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES National Institutes of Health

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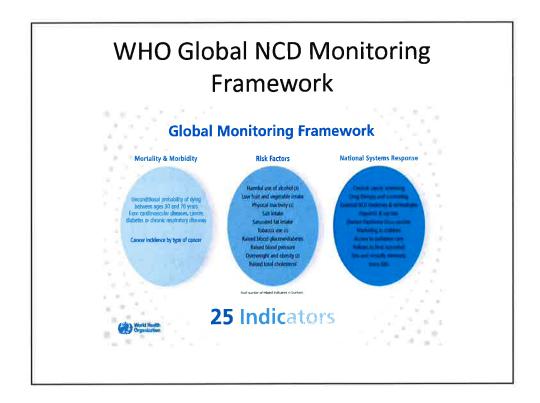
#### **Outline**

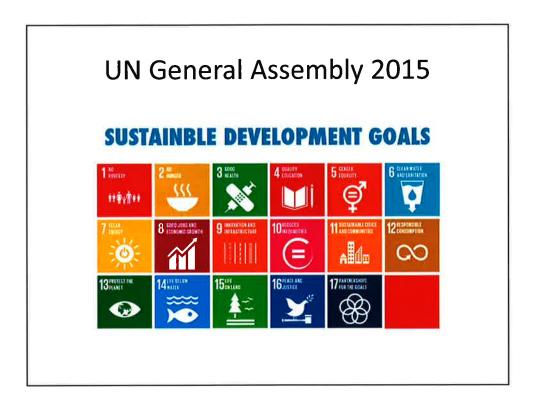
- UN, WHO, & WB priorities for NCDs
- US DHHS global health strategy & goals
- US government support for health research & global health
- NIH and NCI leadership support for global health
- NCI Center for Global Health
- ASCO-NCI partnership

#### **Global health priorities**

- United Nations 2011 High-Level Meeting on NCDs
- WHO 2013 Action Plan for Prevention and Control of NCDs
- World Bank Disease Control Priorities
  - <a href="http://www.dcp-3.org/">http://www.dcp-3.org/</a>
  - 3<sup>rd</sup> edition in development; Surgery & Cancer Volumes published in 2015







#### SDG Goal 3: Targets

- By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births
- By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births

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#### SDG Goal 3: Targets

- By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases
- By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being

#### SDG Goal 3: Targets

- Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol [decrease risk of hepatitis transmission & cancers linked to alcohol)
- By 2020, halve the number of global deaths and injuries from road traffic accidents 3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes [need to improve access to surgery, anesthesia, & clinical laboratory services; can build HPV screening and breast health into reproductive health services]

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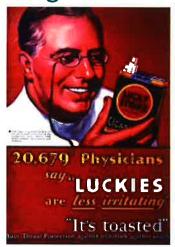
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#### SDG Goal 3: Targets

- Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all
- By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

#### SDG Goal 3: Targets

 Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate



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#### SDG Goal 3: Targets

• Support the research and development of vaccines and medicines for the communicable and noncommunicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all

#### SDG Goal 3: Targets

- Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States
- Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

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#### **NCI Center for Global Health**

- Founded in 2011 by Dr. Harold Varmus to strengthen and coordinate NCI's work in global health and global cancer research
- Deputy directors: Lisa Stevens, PhD, Planning & Operations; Thomas Gross, MD, PhD, Science
- Branch chiefs: Sudha Sivaram, PhD; Catherine Muha, RN, MSN
- 29 FTEs

#### **NCI CGH Senior Staff**

- Regional leads: Ann Chao, PhD (East Asia), John Flanigan, MD (Caribbean, Pacific Islands), Marie Ricciardone, PhD (North Africa, Middle East, Turkey), Preetha Rajaraman, PhD (South Asia, based in Delhi), Jack Welch, MD, PhD (Africa, based in Madagascar)
- Thematic leads: NCDs (John Flanigan), Pathology (Ken Fleming, University of Oxford), Clinical Trials (Jack Welch), Cancer Control Planning (Brenda Kostelecky), Epidemiology (P Rajaraman), Health Surveillance & Registries (A Chao), Health Diplomacy (Marie Ricciardone)

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#### Signature themes for NCI Center for Global Health

- Cancer control planning and implementation
- Building on progress in infectious disease
- Tackling common risk factors for NCDs
- Research on ecologicalniche cancers

- Expanding global cancer research networks
- Strengthening work of NCI-designated Cancer Centers in global cancer research and control
- Low-cost technology development
- Building partnerships

#### Signature themes

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#### **Cancer Control Planning**

- International Cancer Control Leadership Forums
- International Cancer Control Partnership
- Highlight of Peru partnerships

#### **Cancer Control Planning**

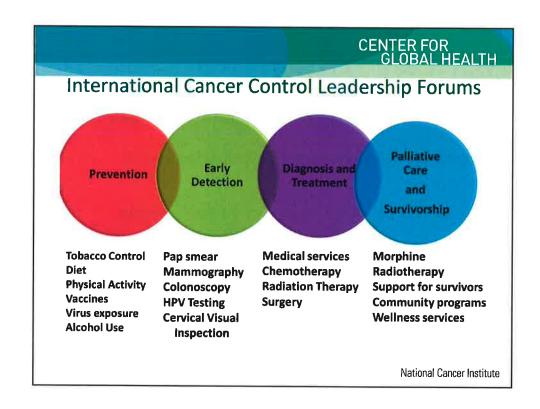
Comprehensive cancer control, defined by the Centers for Disease Control and Prevention (CDC)

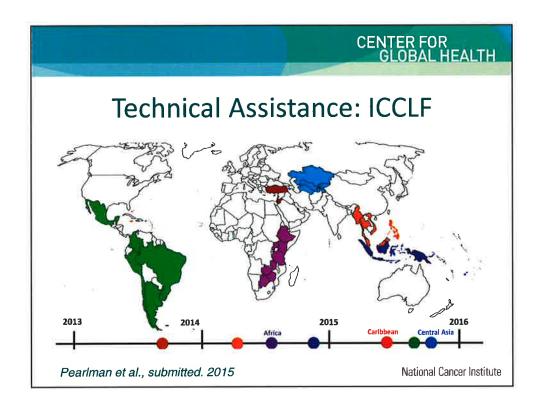
- a <u>collaborative process</u> through which <u>a community pools resources</u> to <u>reduce the burden of cancer</u> that results in:
  - risk reduction
  - early detection
  - better treatment
  - enhanced survivorship



Strategic approach to reducing cancer incidence and mortality

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#### **Cancer control planning and implementation**

- International Cancer Control Partnership
  - WHO, International Agency for Research on Cancer, International Atomic Energy Agency, International Union for Cancer Control, American Cancer Society, NCCN, NCI, ASCO, etc
  - http://www.iccp-portal.org/
- Help countries develop and implement national cancer control plans
- Technical assistance



#### The ICCP Portal

An online one-stop shop for cancer planners and policymakers hosted by UICC with inputs from ICCP Partners.



- What is the ICCP Portal? The ICCP created a Portal that pools together many vital resources to assist countries in implementing commitments from the Global NCD Framework in the cancer field - all in ONE PLACE.
- A knowledge-sharing platform featuring:
  - · Interactive map of cancer & NCD Plans;
  - Library of materials & tools;
  - · Case studies;
  - Technical assistance opportunities;
  - Prevention campaigns repository;
  - Events, Global Initiatives, and more.



#### **Cancer control planning**

- Regional workshops (Cancer Control Leadership Forums) to assist countries in developing and implement national cancer control plans
  - Middle East/North Africa, Turkey 2013
  - SE Asia, Malaysia 2014
  - Southeastern Africa, Zambia 2014
  - Pacific Islands, Australia 2014
  - Caribbean, Trinidad/Tobago 2015
  - Latin America, Mexico 2015
  - Central Asia, Uzbekistan 2015

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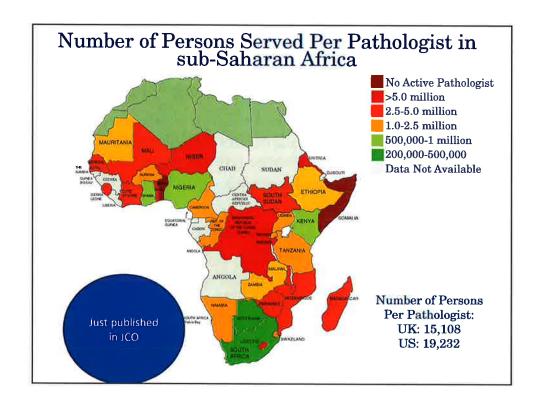
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#### Strategies for Advancing Pathology

Why pathology? accurate pathology diagnosis is fundamental to cancer surveillance and treatment

#### What are the major issues to address?

- Advocacy- many health systems do not value the importance of timely pathologic diagnosis
- Training
- Technology- tele pathology, high quality specimens and basic slides for microscopy, immunohistochemistry and molecular diagnosis
- Systems issues: processing, reporting, communication tools and quality assurance





#### **Activity: Advocacy**

- AJCP Call to Action Editorial
- Embedding pathology as a priority at WHO
- ASAP Slide set presented at least a dozen meetings including CAP, ASCO and ASCP annual meetings
- May 2016 Global Action: Pathology conference at NIH

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#### **Activity: Training**

- Cancer Center Global Health Supplement (P 30) awarded to University of Colorado + Aga Khan University, Nairobi for FNA training
- RSA has created pathology residency slots for other SSA medical graduates
- Sandy Dawsey + CGH partner to support training in Kenya

#### **Activity: Technology**

- Breast mass FNA to tumor marker project in Kenya
- Pathology Track in CGH- Kenya activities
- ASCP global health telepathology Initiative
   announced by OSTP White House, featuring Doug Lowy in a suit!
- Digital Pathology PAR concept co-developed by DCTD + CGH

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#### **Activity: Systems and Standards**

- Trial of CAP Synoptic reporting software in Kenya
- WHO priority medical devices equipment for pathology to be released in 2016
- ASAP + Ken Fleming preparing publications on tiered pathology labs and accreditation
- West African College of Pathology has standardized board certification

#### **Next Steps?**

- Digital pathology PAR concept will be presented to SPL
- Partnerships with UICC and ICCR to improve synoptic reporting?
- Developing world LIS?
- Leapfrog diagnostic technology?

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### Goal: Accurate Diagnosis Guides Correct Cancer Treatment

```
I have a lump in my breast
And I am in need of a test
But I don't know wheth insolute be best
What to consider. Palpake, hooge't, broisy, Fiva
Or leave it alone with it has grown.

Am I in danger?
What is the Worker?
Where do I start?
If they can feel it, why not needle it?
And not waste my money!
What result will the Pathologist tell me?
No need to worky, it only a cyst?
Or There's Something more serious, now lets make a list!

Blogsy, humperbony, it astectionly or worse.
I could leave this planet and my family in a bear.
So let's do a bopsy as somes we can.
And let my Physician cone up with a plane.
```

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#### Signature themes

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#### **Chronic infection and cancer**

- 25 % of cancers in the developing world linked to chronic infection
- 5% human papillomavirus (HPV)
  - Prophylactic HPV vaccines available; screening & treatment available
- 5% hepatitis B and C
  - Hepatitis B vaccine available; treatment for hepatitis B & C available
- 5% helicobacter pylori
  - Antibiotic therapy available
- Other infections: EBV, HIV, HTLV1, liver flukes, schistosomes, etc

#### **HBV & HCV**

- Joint CCR TIGER study with Thailand (liver cancer & cholangiocarcinoma)
- Q1 2015 visit from Mongolian delegation (MOH & civil society) asking NIH & CDC for technical assistance with burden of hepatitis A & B, liver failure, and liver cancer
- Q3 2015 site visit to Mongolia by NCI, NIDDK, NIAID, CDC, WPRO, & US cancer centers

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#### **HPV**

- Joint NIH-Bill & Melinda Gates Foundation working group includes subcommittee on HPV vaccination, diagnostics, & screening
- Planned definitive 1-dose versus 2-dose study of HPV vaccination sponsored by NCI and BMGF
- NCI CGH low-cost technology program includes validation studies of 2 different cryotherapy devcies

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#### Global tobacco control

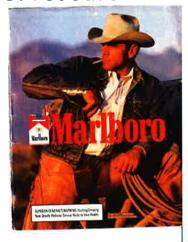
- Framework Convention for Tobacco Control; adopted 2003; active 2005
- First global treaty focused on health
- Signed by 168 countries; legally binding in 178 countries



Collection of Stanford University (tobacco.stanford.edu)

#### Tobacco control research

- NIH International Tobacco and Health Research and Capacity Building Program
- NIH Tobacco Regulatory Science Program
- Tobacco or Health global and regional conferences
- Society for Research on Nicotine and Tobacco



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#### **Tobacco Control at CGH**

**Priorities** 

- Work in partnership with TCRB DCCPS
- Build Research Capacity in LMICs
  - Specific areas of focus include: product research, implementation science, mHealth, tobacco control and high priority cancers, comorbidities and common risk factors
- Support sustainable activities that can be integrated into other CGH efforts such as National Cancer Control Planning or support of research
- Prioritize regional impact and involvement of international partners



#### **Tobacco Control at CGH**

**Accomplishments** 

- Regional research capacity building and evidence-to-policy trainings
  - New Delhi, India, September 2013
  - Melbourne, December 2015
  - Istanbul, Turkey, March 2015
  - Yogyakarta, Indonesia, April 2015
  - Marrakech, Morocco November 2015
- Partners include
- •CDC, FDA, NIH ICs
- •Johns Hopkins
  University
- •WHO/PAHO
- •Global

Bridges/Mayo Clinic





- Ministries of Health
- Local universities and research institutions



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#### **Tobacco Control at CGH**

**Accomplishments** 

- PEER Health Grants in partnership with USAID and the National Academy of Science
  - CGH has developed funding opportunities to promote research in tobacco control in the health and development setting
  - Indonesia
    - Impact of reduced in-home secondhand smoke exposure on low birth weight prevalence and neonatal health, PI: Yayi Suryo Prabandari, Universitas Gadjah Mada
    - Effects of air pollution in early life on infant and maternal health, PI: Idris, Universitas Indonesia
  - Philippines
    - Effect of a smoking cessation intervention program for families of children diagnosed with TB, PI: Benjamin Sablan, Philippine Ambulatory Pediatric Association

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#### 'Ecological-niche' cancers

- Liver cancer & cholangiocarcinoma in Thailand
   Chulabhorn Research Institute-US NCI partnership
- Burkitt Lymphoma in malaria belt
- Gallbladder cancer in Chile, Thailand, & India
- Esophageal cancer in China, Iran, South Africa, Turkey and Kenya
- Oral cancer in South Asia, SE Asia, and East Asia

#### **Betel Quid and Areca Nut Conference**

**Upcoming April 2016** 

- Prevalent use in Asia and the Pacific
  - Little is known about mechanisms of areca nut carcinogenesis or addictive properties and its combined use with tobacco and other ingredients
- Conference Kuala Lumpur, April 2016
  - Expected Outcomes:
    - Identify research priorities and gaps
    - Build research networks
    - Identify evidence-based prevention and control strategies





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#### **Betel Quid and Areca Nut Conference**



MALAYSIA





Making Cancer History





Scientific Steering Committee including:

- IARC/WHO
- Taiwanese MOH
- UICC
- King's College London
- Healis Sekhsaria Institute for Public Health (India)
- National Health Research Institutes, Taiwan

#### Oral (and esophageal) cancer

- Nexus of betel quid, areca nut, tobacco, and alcohol
- South Asia, Southeast Asia, East Asia, some
   Pacific Islands, & among migrant communities
   elsewhere
- Critical public health and cancer research issues

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#### **Critical questions: I**

- Epidemiology across populations with different exposures to betel quid, areca nut, tobacco, and alcohol
- Molecular biology of oral neoplasia
- Addictive properties of betel quid and areca nut
- Development and validation of prevention & cessation programs

#### **Critical questions: II**

- How best to build on tobacco control research
- Development, validation, and implementation of screening programs for oral neoplasia
- Treatment of oral neoplasia
- Proposed regional workshop in 2016

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#### **Expanding cancer research networks**

- AIDS Clinical Trials Group (ACTG)
  - Sites in US, Latin America, Africa, and Asia
  - Thailand: Thai Red Cross AIDS Research Center & Chang Mai University HIV Treatment CRS
- AIDS Malignancies Consortium
  - Sites in US, Latin America, Africa, and Asia
- International Cancer Genome Consortium ->
  - Global Alliance for Genomics & Health
- Networks for pediatric & adult cancer treatments trials
  - Global H&N and cervical cancer intergroups
  - EBV & BL treatment network

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#### **NCI-designated Cancer Centers**

- 68 cancer research centers in US
  - 60 clinical and translational research, 8 basic research
- Strengthening global cancer research programs in partnership with US NCI
- Integrating cancer research with ongoing global health research
- Building career track for global cancer researchers
- Competitive supplements for Cancer Centers in 2013 (15 awards) and 2015 (10 awards)

## Regional Centers of Research Excellence for Non-Communicable Diseases in LMICs a Concept in Three Phases

Phase I: P20, Planning Grant

To <u>plan and design</u> sustainable Regional Centers of Research Excellence for NCDs, including cancer, LMICs or regions

Phase II: U54, Center Grant

To <u>build</u> sustainable RCREs, including support for center and research program leadership, administration, shared resources, & pilot projects

Phase III: R01, R21, and R03, Research Project Grants

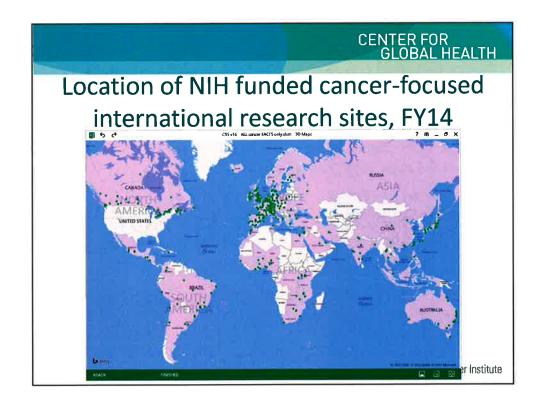
To <u>use</u> the programmatic leadership, administrative processes, and center shared resources to support and ease conducting NCD research in LMICs

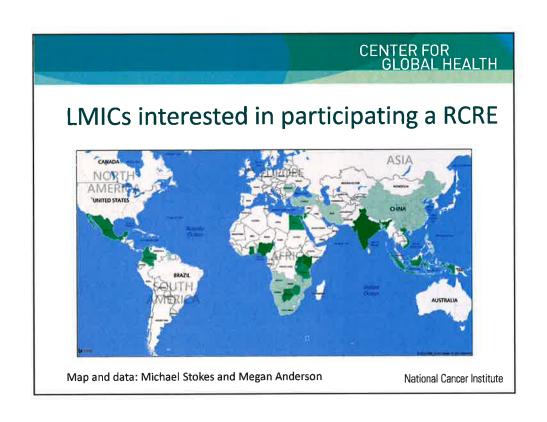
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### Elements of these Regional Centers for Research Excellence

- NCD disease-focused research programs: At least 2; 1 cancer; 1 another NCD e.g. CVD
- 3 shared resources: To support the research programs
- Research enhancement activities: To support the research programs
- Community Involvement/ needs assessment: So that the research serves the needs to the catchment area
- Monitoring and evaluation: To measure impact
- Pilot project: To demonstrate that the team can produce highquality science together





#### **Questions and Opportunities**

- What elements make a region ripe for a RCRE?
  - How many RCREs do we need?
- What would a successful cancer/ NCD-focused research footprint in LMICs look like in 3 – 5 years?
  - How, and how often, should we evaluate the impact and modify the strategy?
- What funding models to you suggest to support research in LMICs?

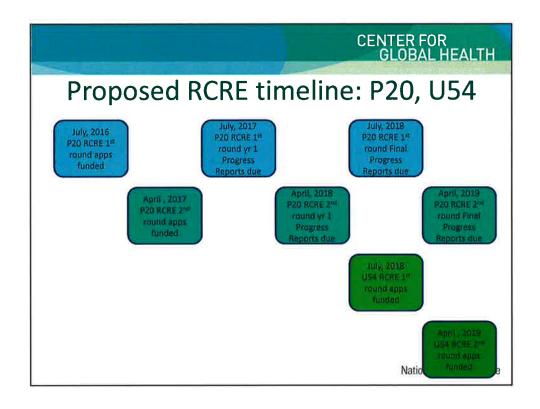


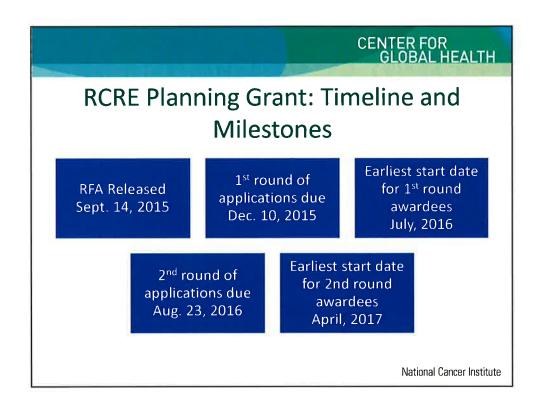
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#### **P20 Planning Grants:**

- 2 award cycles; 6 awards
  - Approx. 3 awards made Summer 2016
  - Approx. 3 awards made Spring 2017
- Maximum project period is 2 years
- Maximum budgets are \$200,000 in direct costs per year
- At least 60% of the proposed direct cost budget must be for costs in the LMIC





# RCRE Planning Grant: Questions and Contacts NCI Center for Global Health National Institutes of Health

240.276.5810

Shannon L. Silkensen, PhD John S. Flanigan, MD shannon.silkensen@nih.gov john.flanigan@nih.gov

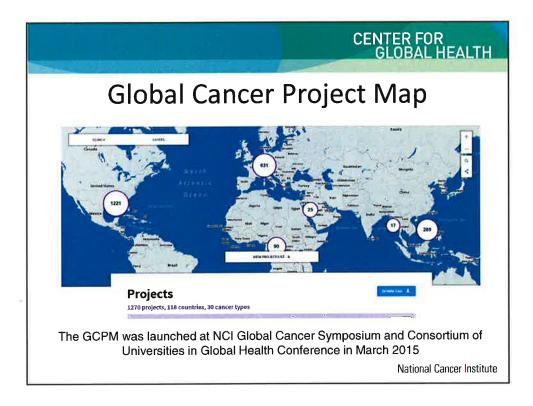
http://grants.nih.gov/grants/guide/rfa-files/RFA-CA-15-007.html

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#### **Global Cancer Project Map**

- Partnership with Global Oncology for software development
  - http://globalonc.org/Projects/global-cancer-projectmap/
- Catalogues international cancer research, care, outreach, education, and & twining programs
- NCI, ASCO, UICC & GO! working to expand database
- Could use same platform to catalogue global surgery & other NCD activities



#### **Regional Centers of Excellence NCD Research**

- Non-communicable diseases in low- and middle-income countries
  - Broad definition of NCDs, includes mental health, trauma, surgery, hematology, palliative care, etc
- Planning grants (P20), \$200,000 per year for 2 years
- Consortia of HIC and LMIC institutions working in selected region or country

#### **Regional Centers of NCD Research Excellence**

- NCI developed FOA with input from other NIH institutes; we will ask them to consider cosponsoring
- NCI plans follow-up FOA to build the Centers of Research Excellence
- NCI will ask other countries to fund the participation of their universities in relevant consortia
  - Australia, China, Denmark, France, Germany, Ireland,
     Japan, Korea, NZ, Netherlands, Norway, Sweden, etc

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#### Background

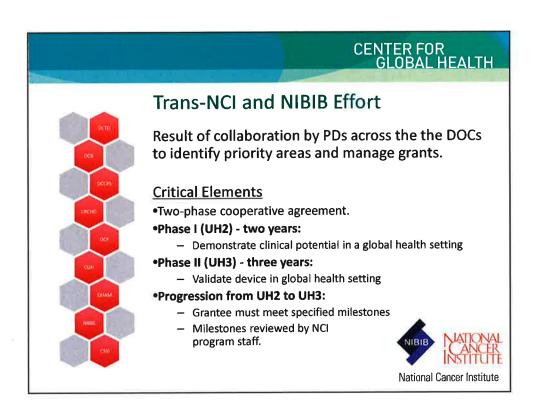
- Rapid progress in several fields
   New generation of point-ofcare technologies.
- Increased attention from medical community, technologists, policy-makers, and advocates.

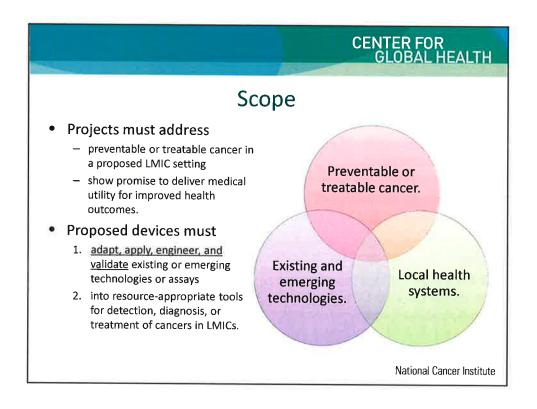
#### Aim:

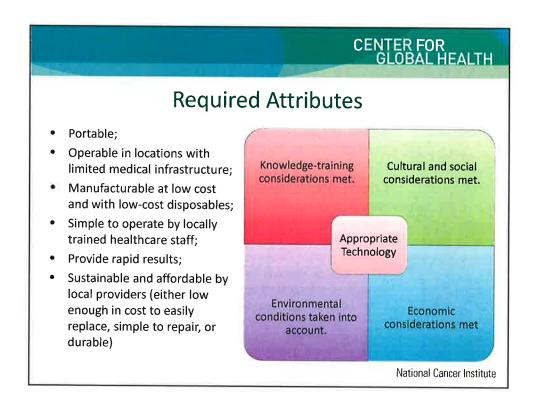
Stimulate technology development for cancer detection, diagnosis and treatment in low-resource settings.

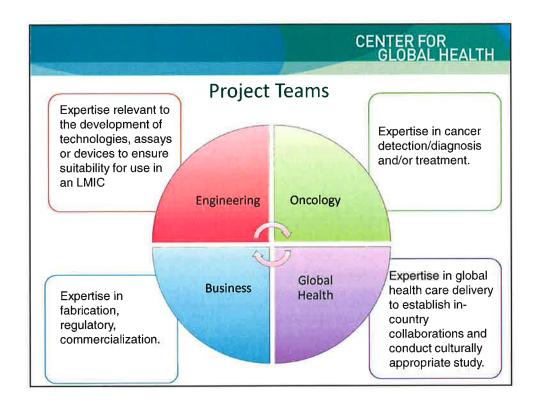
Jani V. Ilesh, June 13, 2013 N. Engl J Med

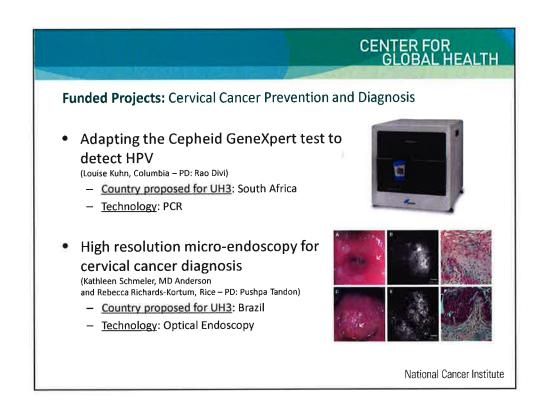










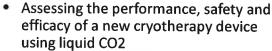


#### **Funded Projects:** Cervical Cancer Treatment

Adaptation and testing of the CryoPen cryotherapy device for treating cervical neoplasia for use in LMICs

(Miriam Cremer, Basic Health International— PD: Miguel Ossandon)

- Countries proposed for UH3: Peru & Columbia
- Technology: Cryotherapy



(Jean Anderson, Hopkins – PD: Brian Sorg)

- Country proposed for UH3: Philippines
- Technology: Cryotherapy





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#### Funded Projects: Oral Cancer Treatment, HCC Prevention,

Low-cost enabling technology for image-guided photodynamic therapy of oral leukoplakia

(Jonathan Celli, UM Boston and Tayyaba Hasan, Massachusetts General Hospital – PD: Lokesh Agrawal)

- Country proposed for UH3: India
- Technology: Battery-powered PDT



A low-cost test for hepatitis C virus to identify patients at risk for developing hepatocellular carcinoma

(Robert Murphy, Northwestern University - PD: Rao Divi)

- Country proposed for UH3: Nigeria
- Technology: RNA Viral Load Test

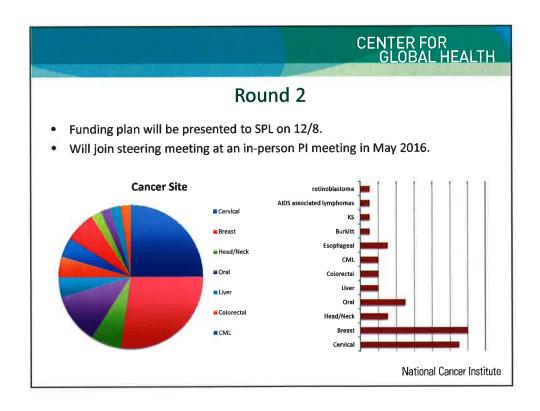
#### **Funded Projects:** Breast Cancer Detection/Diagnosis

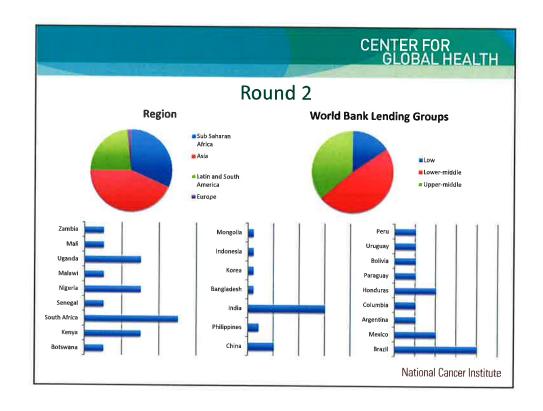
 Low-cost, portable computer-aided detection and diagnostic (CADD) tools for non-invasive screening of breast cancer patients

(Susan Love, Dr. Susan Love Research Foundation – PD: Vinay Pai)

- Country proposed for UH3: Mexico
- <u>Technology:</u> Ultrasound/CADD









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#### **Partnerships**

- US NIH: NIAID, NHLBI, NIMH, Fogarty International Center, etc
- US DHHS: Office of Global Affairs, CDC, FDA
- US Department of State: Science, Global Health, USAID, PEPFAR
- US Department of Defense
- UN: WHO, including IARC and regional offices IAEA, UNDP, UNICEF, UN Women, International Narcotics Control Board

# Bilateral Co-funding Programs: Overview and Stewardship

## **Science for Diplomacy:**

These programs operationalize science and technology agreements made by the US government. They represent a key piece of NIH's contributions to global health diplomacy.



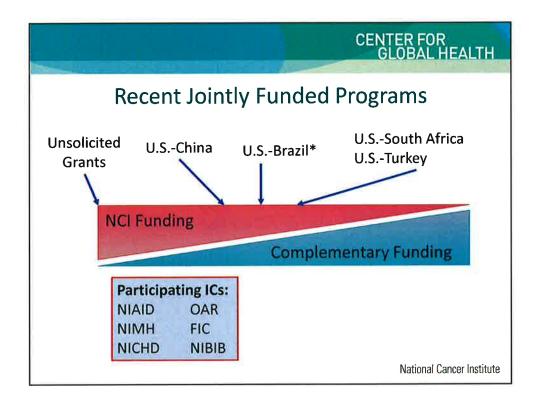
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# Overview and Purpose

#### **Diplomacy for Science:**

Bilateral funding programs support the collaborative research endeavors of our scientists by guaranteeing funded collaborators on equal footing with the authority to engage in bilateral research exchange.





# U.S.-China Joint Collaborative Research Program Summary of First Five Years (2011-2015) • 3 FOAs: — Admin Supplements (2011, 2012) — R01s (2013-2015) • 30 co-funded NCI projects (of 109 NIH-wide) — 2011: 11 extramural, 2 intramural — 2012: 8 extramural, 1 intramural — 2013: 6 extramural, 2 intramural

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# U.S.-China Joint Collaborative Research Program Summary of First Five Years (2011-2015)

Topics (2011,2012):

- pathobiology of cancers in China or the U.S.
- rare tumors where there is a benefit to U.S.-China cooperation to identify sufficient numbers of cases for study
- Infection-associated, including HIV-associated malignancies
- Several areas of basic cancer research (e.g., genomics, systems biology, nanotechnology, cell and tumor biology)
- (2012) Traditional Chinese medicine to identify novel therapeutics

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# U.S.-China Joint Collaborative Research Program Summary of First Five Years (2011-2015)

Topics (2013-2015):

- Research focused on the links between infection and cancer important in the U.S. and China, particularly:
  - Epstein Barr Virus (EBV);
  - Helicobacter pylori;
  - Hepatitis B (HBV) and Hepatitis C (HCV);
  - Human Papillomavirus (HPV) and possible co-factors such as Cytomegalovirus (CMV) and Herpes Simplex Virus (HSV);
  - Kaposi-Associated Herpes Virus (KSHV or HHV-8).

# U.S.-China Joint Collaborative Research Program

#### **Summary of First Five Years (2011-2015)**

- Funding
  - NSFC:
    - 2011: \$1.63M
    - 2012: \$2.02M
    - 2013-2015: \$3.20M/yr
  - NIH (NCI, NIAID, OAR, NIMH, NINDS):
    - 2011 : NCI \$1 M/yr; NIH total \$2 M/yr
    - 2012: NCI \$1 M/yr; NIH total \$3 M/yr
    - 2013-2015: NCI \$1M/yr; NIH total \$5M/yr

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#### U.S.-China Joint Collaborative Research Program

#### **Summary of First Five Years (2011-2015)**

- Scientific Productivity
  - 31 publications
  - 379 training events
  - 1 patent filed (antiviral compounds)

New round in the works focused on cancer biology, nanotechnology research, and genomics/proteomics.

FOA planned for mid-December.



#### U.S.-Brazil Joint Collaborative Research Program

#### Summary of 1st Year (FY15)

- 4 co-funded NCI projects (of 19 NIH-wide)
- NCI: \$356,915 (of \$1M), OAR/NIAID: \$2M
- Brazilian Partners: \$2.2M
- U.S. award: Administrative supplement
- Brazilian award: New, 1-year award
- Topics:
  - Immunology, HIV, Infectious Diseases
  - Infection-related cancers

#### Second round is in the works (R01s)

Bioinformatics and Computational Biology • Health Systems, Implementation Science • Immunology, HIV and its co-morbidities • Infectious Diseases • Cancer • Neurological Disorders and Stroke



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## U.S.-South Africa Joint Collaborative Research Program

#### Summary of 1st Year (FY15)

- Three FOAs (R01, R21 and U01) were published, topics included:
  - TB, HIV/AIDS biomedical/behavioral science
     & HIV-related comorbidities (including cancer)
- NCI funded 1 R01 (of 14 NIH-wide), 2 R21s (of 12 NIH-wide), and 1 U01 (of 5 NIH-wide)

#### U.S.-South Africa Joint Collaborative Research Program

#### Summary of 1st Year (FY15)

- NCI: \$943,440 (of \$1M) (year 1)[NCI set-aside \$1M/yr for 5 year]
- Other ICs (OAR, NIAID, NIMH, NICHD): \$2.92M
- MRC of South Africa: \$4M (year 1)

#### **Going Forward**

(weighing several options)

- 1. Round 2 of R21s
- 2. K43s
- 3. Competitive supplements to underserved SA institutions
- 4. G11 Extramural Associate Research Development Awarus



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U.S.-Turkey Collaborative Program for Affordable Medical Technologies

#### Summary of 1st Year (FY16)

- Ongoing PAR
- Collaboration with Turkish funding agency, Tubitak
- First round of applications to be reviewed October to November
- Funding
  - NCI/NIBIB: Small R01s \$100,000/yr for 2 years
  - Tubitak: New awards at \$100,000/yr for 2 years

# U.S.-Russia Bilateral Collaborative Research Partnerships on Cancer

#### **Concept in Development for FY17**

- ~10 R21s at \$100k per year for 3 years
- Matched commitment from Russian Basic Research Foundation (RFBR)
- Topics:
  - Immunotherapy and the tumor microenvironment
  - Anticancer drugs targeted delivery
  - Precision medicine for cancer
  - Bio-imaging of cancer
  - Biomedical application of nanoparticles
  - Brain cancer biology
  - Epigenetics, proteomics and metabolomics
  - Brain plasticity and effect of therapy (in brain tumors)
  - Tumor angiogenesis including fundamental and clinical aspects
  - Biomarkers predictive factor after regrowth of tumors (in brain tumors)



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# Scope of Research

- Actively negotiated with partners from foreign funding agencies and other Institutes and Centers
- Topic areas in FOAs represent areas where we were able to reach consensus









Science Translational Medicine, 6 March 2013

"Successful campaigns to control cancers with existing methods and to improve current strategies through research will increasingly depend on a multinational consensus and collaborative work. In that spirit, we intend to take the lead in areas that are within our remits."

~ Harold Varmus and Harpal S. Kumar

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# **Global Cancer Day**

- More than 150 NCI attendees
- Keynote: Dr. Stephen Chanock (DCEG)
- Presentations from DCCPS, CCT, and OHAM
- 12 posters
- Multiple CGH talks



# Peru Partnership Presentation

- World Cancer Leaders Summit session
- INEN, PATH, IAEA present
- Importance of national and international partnerships in NCCP
- Broad stakeholder engagement
- Financial commitments

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# AORTIC (African Organization for Research and Training in Cancer)

- AORTIC was founded in 1983 with a mission of promoting cancer control in Africa.
  - Facilitating research and training
  - Providing relevant and accurate information on the prevention, diagnosis, treatment, and palliation of cancer.
- The 2015 AORTIC Conference was held in Marrekech, Morocco, from November 18-22, 2015.



Source: http://www.aortic-africa.org

# **CGH Pre-Conference Meetings**

- Kenya Stakeholder Meeting
- Grant and Scientific Writing
- IAEA Workshop
- Tobacco Control in the African Continent: Research to Practice
- Dissemination and Implementation Science

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# Kenya Pre-Conference Meeting

- Fifteen (15) attendees, half of whom were not at the 2014 stakeholder meeting.
- The meeting provided an opportunity to engage new partners who did not attend the 2014 meeting.















The Aga Khan University Hospitals



## Kenya Pre-Conference Agenda

#### Updates

- NCI: actions and milestones since 2014 meeting
- Kenya: progress since 2014 meeting, specifically regarding cancer registries and pathology
- Mishka Cira, in-country consultant, provided an update on progress within the Kenya Government to the establishment of a Kenyan NCI.

#### Facilitated Discussion

- 1. Building a research capacity infrastructure within the Kenya NCI\*
- 2. Coordination around community education and stigma efforts\*\*
- 3. Possible training and funding opportunities, specifically in scientific and grant writing, and possible bi-lateral research funding

\*Jack Welch will meet with a research-focused working group in December 2015.

\*\*The Women's Cancer Advocacy Network will hold its annual African meeting in Nairobi in April 2016.

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# **Grant and Scientific Writing**

- Over 30 participants from 8 African countries
- Two day workshop
- Session topics included:
  - Preparing to publish
  - Manuscript organization
  - Publishing and impact
  - Preparation for grant writing
  - Project planning
  - Proposal elements
  - Research ethics





#### IAEA Workshop on Resource Mobilisation for Cancer Control in African Countries

- French speaking countries that participated in the workshop include Burkina Faso, Cameroun, Niger, Cote d'Ivoire, Madagascar, Maroc, Congo Republic, Mali, Senegal.
- Ms. Anja Nitzche-Bell, Head of Resource Mobilization and Strategic Partnerships (PACT), provided remarks on:
  - Key developments and trends in global health financing
  - Principal methods of resource mobilization for health at the national level
  - Innovative ways to raise public revenue and take the message to participants' governments
- Participants discussed challenges and opportunities in raising funds in their countries, as well as ways to convince their governments of the urgency of mobilizing resources at the local level.

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#### Tobacco Control in the African Continent: Research to Practice

- Sponsors: NCI, WHO Regional Office for Africa (WHO AFRO), Center for Tobacco Control in Africa (CTCA), Mayo Clinic
- Thirty-three (33) participants from Morocco, South Africa, Ethiopia, Kenya, Tanzania, Uganda, Nigeria, Lesotho, Cameroon, the U.K., and the U.S.
- · Workshop Goals
  - Explore current tobacco control research efforts
  - Develop a network of researchers
  - Identify research needs and opportunities to support tobacco control efforts
- Key areas for research focus
  - Changes in tobacco use among adolescents and women
  - Analysis of diverse tobacco products
  - Economic impact of tobacco use
  - Alternatives to growing tobacco for farmers
  - Strategies of the tobacco industry
- Next Steps
  - Publishing workshop summary and recommendations for next steps
  - Development of listserv
  - Completion of a network analysis



Photo credit: http://who.int

# Dissemination and Implementation Science Workshop

- Fifteen (15) participants discussed the principles of D&I research, conceptual models, study designs, and methodologies.
- Participants came from Nigeria, Cote D'Ivoire, Kenya, Ethiopia, Canada.
- NCI staff shared D&I research opportunities.
- The next Masters courses will consist of six webinars, leading up to an in-person workshop, planned for UICC Paris.
- Strong interest in this field, with an enthusiasm to understand and conduct research.

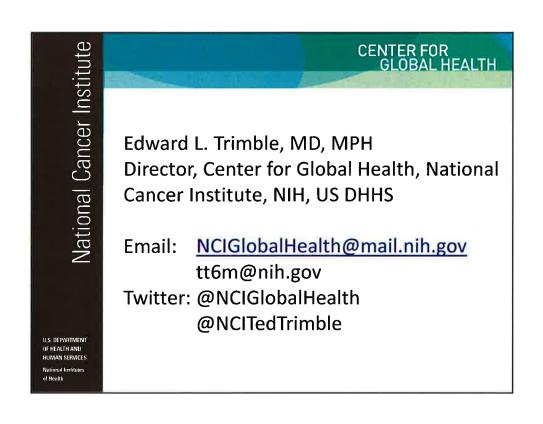
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#### **Partnerships**

- Other countries: Australia, Brazil, Canada, China, France, India, Japan, Korea, South Africa, Thailand, UK, etc
- Non-governmental organizations & advocacy groups
  - International Union for Cancer Control; Pink Ribbon Red Ribbon, NCD Alliance, etc
- Medical and nursing professional societies, such as ASCO, ASTRO, ISNCC, IGCS, etc
- Pharmaceutical, bio, and device industries





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